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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/725,630

12/01/2003

Gyuyoung Han

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4672

20583

7590

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JONES DAY

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EXAMINER

ISSING, GREGORY C

ART UNIT

PAPER NUMBER

3662

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/21/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/725,630

Applicant(s)

HAN, GYUYOUNG

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the language "sending MAR optimizing data", "that meets optimizing requirements" and "optimizing the location-based services" are indefinite since the metes and bounds are not ascertainable with respect to the "optimized" data, requirements, or services. In claim 1, it is not understood what is meant by a "test terminal for sending . . . data . . . to at least one measurement point". Does the "measurement point" refer to the various points at which the test terminal makes measurements or some remote point. If it refers to the location at which the measurements are received, the sending of data to it is indefinite. The "MAR optimizing data" is indefinite since it is unclear how received satellite signal geolocation information relates to a base station maximum antenna range constraint.

The language "A-GPS data" is indefinite since the metes and bounds of such are not distinctly claimed. It is not clear what A-GPS data is received from a GPS satellite since the applicant appears to define the A-GPS data as data from a base station for assistance information in the acquisition of satellite signals.

It is not clear how the test terminal receives data from the base station if it is outside the MAR of the base station antenna.

What is the difference between "signals and data" with reference to the base transceiver station?

The language of claim 9 is confusing and the scope is not clear.

In claim 15, "a MAR optimizing algorithm" is indefinite since it fails to distinctly define the subject matter.

In claim 25, lines 4-5, "of a wireless base stations" is grammatically incorrect. What is the distinction between measuring GPS signals under C-GPS operation mode and A-GPS operation mode.

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The A-GPS data" in step (c) is undefined. The claim fails to clearly and distinctly set forth the method since each of the steps is merely repetitious of language in the preamble.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1- are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 is non-enabling with respect to how geolocation information is determined from one satellite.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deloach, Jr. et al (2003/0125044) in view of Yamazaki (6,919,841).

7. Deloach et al teach the system and method substantially as claimed for calibrating (Fig. 10, e.g.) a communication system using a wireless mobile station as a test terminal wherein each base station includes a set of parameters (Fig. 4) including MAR data ([0059]) wherein the coverage, which is defined by the set of parameters is adaptable based on any of numerous factors. Deloach, Jr. et al also suggest the use of GPS assist information [0077]. Deloach Jr. et al differ from the claimed subject matter since the specifics of the mobile terminal GPS receiver are not shown.

8. Yamazaki teaches the conventionality of including both a conventional stand-alone GPS receiver unit and an assisted GPS receiver unit to improve the position determination capability of the mobile unit.

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9. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Deloach, Jr. et al by supplementing the standalone GPS receiver with an assisted GPS receiver to provide a receiver capable of receiving the assistance data of Deloach, Jr. et al and thereby improve the speed and accuracy of the position determination.

10. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson (5,564,079) in view of Yamazaki (6,919,841).

11. Olsson discloses a measurement system for dimensioning a communication system including a mobile terminal, a test terminal, for receiving GPS signals, determining geolocation and transferring to a mobile communication network via a base station BS to a base station controller BSC and a position determination entity in the form of an adaptive neural network ANN. Information is transferred from the mobile station to the base station including signal strength and cell identity, e.g., in order to regulate power and handover control.

12. Olsson differs from the claimed subject matter since the mobile device is not specified as including reception of assisted GPS data as best understood.

13. Yamazaki teaches the conventionality of including both a conventional stand-alone GPS receiver unit and an assisted GPS receiver unit to improve the position determination capability of the mobile unit.

14. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Olsson by supplementing the standalone GPS receiver with an assisted GPS receiver to provide increased accuracy and speed in the position determination. Since the mobile unit already receives the information from the base stations as well as the GPS satellites and transfers such back to the base station for control thereof, it would have been obvious and/or inherent that the assisted GPS data/position is transferred to the base station. In view of the teachings of Olsson to measure mobile telephone traffic in a digital telecommunication, as well as the measurements of location and the collected measurement data (3:11-24), the testing operations are deemed to be shown and or made obvious to the skilled artisan.

15. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garceran et al (6,522,888) in view of Kingdon et al (2001/0014604) and Yamazaki (6,919,841).

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16. Garceran et al (6,522,888) disclose a system and method for determining coverage in a wireless communication system using location information of a wireless test terminal collecting communication property information. Utilizing the information, the system can improve coverage by adjusting frequencies and/or power of the network antennas.

17. The location information obtained by the mobile test terminal includes position, time, speed, distance and/or direction (3:12-15). The additional information obtained includes signal quality measurements such as RSSI, BER and/or FER, operating conditions, mobile identity, traffic load, frequency, mobile type (3:18-25). By analyzing the information, RF coverage can be determined including forward link/ reverse link frequency, the serving base stations, hand-off candidates and signal power(s). The location information may be determined using GPS technology (Fig. 4 and 6:31-58).

18. Garceran et al differ from the claimed subject matter since the particulars of assisted GPS are not specified.

19. Kingdon et al (2001/0014604) teach the conventionality of a telecommunication system and method for provisioning A-GPS to a mobile terminal (Fig. 2). Kingdon et al show the conventional operations of an assisted GPS including the use of wireless network base stations providing the assistance data to the mobile terminal as well as the teaching that in order to meet the demands for expedited and accurate positioning, accurate assistance data is required for a wireless mobile device ([0012]-[0013])

20. Yamazaki teach the conventionality in mobile phone positioning systems of a combined standalone and assisted GPS receiver which is known to improve the speed of acquisition and position determination as well as an increased accuracy of the position measurement.

21. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Garceran et al by incorporating the teachings of Kingdon et al for providing assistance data to mobile wireless communication devices as well as to incorporate the teachings of Yamazaki by incorporating a conventional standalone GPS receiver as well as an assisted GPS receiver.

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tang (6,799,046) discloses a method and system for collecting location information from GPS and signal

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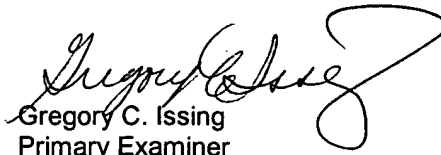
information regarding for example signal strengths from adjacent wireless communication base stations to form a profile database associated with each base station.

23. Stein et al (2003/0008669) disclose a method and system for estimating position of a wireless communication device in a wireless communication network wherein the device is operating within the coverage area of a repeater.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Gregory C. Issing  
Primary Examiner  
Art Unit 3662

gci